

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/005,202

DATE: 01/02/2002

TIME: 09:43:36

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01022002\J005202.raw

4 <110> APPLICANT: Allen, Keith D.  
6 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING INWARDLY  
7 RECTIFYING POTASSIUM CHANNEL (Kir5.1) GENE DISRUPTIONS  
10 <130> FILE REFERENCE: R-902  
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/005,202  
C--> 12 <141> CURRENT FILING DATE: 2001-12-04  
12 <150> PRIOR APPLICATION NUMBER: US 60/254,888  
13 <151> PRIOR FILING DATE: 2000-12-11  
15 <160> NUMBER OF SEQ ID NOS: 4  
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
19 <210> SEQ ID NO: 1  
20 <211> LENGTH: 1257  
21 <212> TYPE: DNA  
22 <213> ORGANISM: Mus musculus  
24 <400> SEQUENCE: 1  
25 atgagctatt acggaagtag ctaccggatt gtcaatgtgg actccaaata tccaggctat 60  
26 cctccagagc atgccatcgc tgagaagaga agagcaagaa ggcgcttgct ccacaaagat 120  
27 ggcagctgta atgtgtactt taaacacatt tttggagaat gggggagcta catggttgat 180  
28 atttttacca ctcttggtga taccaagtgg cgccatatgt tcataatatt ttctctgtct 240  
29 tacattctct cctggttgat atttggttcc atattttggc tcatagcctt tcatcacgga 300  
30 gacctattaa gcgatccaga tatcaccctt tgtgttgaca acgtgcattc atttacggct 360  
31 gcatttttat tctccctgga gaccagacc accattggat acggttaccg ctgtgtcacc 420  
32 gaagagtgtc ctgtggctgt actgacagt atccttcagt ccatcctcag ctgcatcata 480  
33 aacaccttca tcattggagc agccttgga aagatggcaa ctgcccggaa gagagcccag 540  
34 accatacgtc tcagctatct tgccctcatt ggtatgagag acgggaagcc ttgcctcatg 600  
35 tggcgcatag gtgacttccg accaaaccat gtggtagagg gcacggtgag agcccaactt 660  
36 ctgcgctatt cagaagacag tgaaggagg atgacgatgg cgtttaaaga cctcaaactc 720  
37 gtcaatgacc agataatcct ggtaactcca gtgactattg tccatgaaat tgaccatgag 780  
38 agccctctgt atgcccttga ccgcaaggca gtggccaaag ataatttcga gattctggtg 840  
39 acatttatct atactggtga ttccactggg acatcccacc agtccagaag ttcctacatc 900  
40 cccagagaaa ttctctgggg ccacagggtt catgatgtat tggaagtga gagaaagtac 960  
41 tacaagggtga actgcttgca gtttgaagga agcgtggaag tctacgcccc cttttgcagt 1020  
42 gccaaacaac tggactggaa ggaccaacaa ctcaacaact tggagaaaac gtcccctgcc 1080  
43 cgaggatcct gcaattctga caccaacacc aggaggcggc ccttcagcgc agttgccgtg 1140  
44 gtgagcagct gtgagaaccc agaggagacc gtcctgtccc cacaagatga atgtaaggag 1200  
45 atgccctatc agaaagccct cctgacttta aataggatct ccatggaatc ccagatg 1257  
47 <210> SEQ ID NO: 2  
48 <211> LENGTH: 419  
49 <212> TYPE: PRT  
50 <213> ORGANISM: Mus musculus  
52 <400> SEQUENCE: 2  
53 Met Ser Tyr Tyr Gly Ser Ser Tyr Arg Ile Val Asn Val Asp Ser Lys  
54 1 5 10 15  
55 Tyr Pro Gly Tyr Pro Pro Glu His Ala Ile Ala Glu Lys Arg Arg Ala  
56 20 25 30  
57 Arg Arg Arg Leu Leu His Lys Asp Gly Ser Cys Asn Val Tyr Phe Lys  
58 35 40 45

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```
59 His Ile Phe Gly Glu Trp Gly Ser Tyr Met Val Asp Ile Phe Thr Thr
60      50                      55                      60
61 Leu Val Asp Thr Lys Trp Arg His Met Phe Ile Ile Phe Ser Leu Ser
62 65                      70                      75                      80
63 Tyr Ile Leu Ser Trp Leu Ile Phe Gly Ser Ile Phe Trp Leu Ile Ala
64                      85                      90                      95
65 Phe His His Gly Asp Leu Leu Ser Asp Pro Asp Ile Thr Pro Cys Val
66                      100                      105                      110
67 Asp Asn Val His Ser Phe Thr Ala Ala Phe Leu Phe Ser Leu Glu Thr
68                      115                      120                      125
69 Gln Thr Thr Ile Gly Tyr Gly Tyr Arg Cys Val Thr Glu Glu Cys Ser
70                      130                      135                      140
71 Val Ala Val Leu Thr Val Ile Leu Gln Ser Ile Leu Ser Cys Ile Ile
72 145                      150                      155                      160
73 Asn Thr Phe Ile Ile Gly Ala Ala Leu Ala Lys Met Ala Thr Ala Arg
74                      165                      170                      175
75 Lys Arg Ala Gln Thr Ile Arg Phe Ser Tyr Phe Ala Leu Ile Gly Met
76                      180                      185                      190
77 Arg Asp Gly Lys Pro Cys Leu Met Trp Arg Ile Gly Asp Phe Arg Pro
78                      195                      200                      205
79 Asn His Val Val Glu Gly Thr Val Arg Ala Gln Leu Leu Arg Tyr Ser
80                      210                      215                      220
81 Glu Asp Ser Glu Gly Arg Met Thr Met Ala Phe Lys Asp Leu Lys Leu
82 225                      230                      235                      240
83 Val Asn Asp Gln Ile Ile Leu Val Thr Pro Val Thr Ile Val His Glu
84                      245                      250                      255
85 Ile Asp His Glu Ser Pro Leu Tyr Ala Leu Asp Arg Lys Ala Val Ala
86                      260                      265                      270
87 Lys Asp Asn Phe Glu Ile Leu Val Thr Phe Ile Tyr Thr Gly Asp Ser
88                      275                      280                      285
89 Thr Gly Thr Ser His Gln Ser Arg Ser Ser Tyr Ile Pro Arg Glu Ile
90                      290                      295                      300
91 Leu Trp Gly His Arg Phe His Asp Val Leu Glu Val Lys Arg Lys Tyr
92 305                      310                      315                      320
93 Tyr Lys Val Asn Cys Leu Gln Phe Glu Gly Ser Val Glu Val Tyr Ala
94                      325                      330                      335
95 Pro Phe Cys Ser Ala Lys Gln Leu Asp Trp Lys Asp Gln Gln Leu Asn
96                      340                      345                      350
97 Asn Leu Glu Lys Thr Ser Pro Ala Arg Gly Ser Cys Asn Ser Asp Thr
98                      355                      360                      365
99 Asn Thr Arg Arg Arg Ser Phe Ser Ala Val Ala Val Val Ser Ser Cys
100                      370                      375                      380
101 Glu Asn Pro Glu Glu Thr Val Leu Ser Pro Gln Asp Glu Cys Lys Glu
102 385                      390                      395                      400
103 Met Pro Tyr Gln Lys Ala Leu Leu Thr Leu Asn Arg Ile Ser Met Glu
104                      405                      410                      415
105 Ser Gln Met
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 200
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```
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Targeting vector
117 <400> SEQUENCE: 3
118 agctacagga tcgtcaatgt ggactccaaa tatccaggct atcctccaga gcatgccatc 60
119 gctgagaaga gaagagcaag aaggcgcttg ctccacaaag atggcagctg taatgtgtac 120
120 tttaaacaca tttttggaga atggggggagc tacatggttg atatttttac cactcttgtg 180
121 gataccaagt ggcgccatat                                     200
123 <210> SEQ ID NO: 4
124 <211> LENGTH: 200
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Targeting vector
131 <400> SEQUENCE: 4
132 cgaagagtgc tctgtggctg tactgacagt gatccttcag tccatcctca gctgcatcat 60
133 aaacaccttc atcattggag cagccttggc aaagatggca actgcccgga agagagccca 120
134 gaccatacgc ttcagctatt ttgccctcat tggatatgaga gacgggaagc tttgcctcat 180
135 gtggcgcata ggtgacttcc                                     200
```

VERIFICATION SUMMARY

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date